



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 1

5 POST OFFICE SQUARE, SUITE 100
BOSTON, MA 02109-3912

**CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

Date provided in electronic signature below

Mark Thibodeau, Plant Manager
Barnhardt Manufacturing Company
247 Main Road
Colrain, MA 01340

Re: EPA Request for Information Pursuant to Section 308 of the Clean Water Act and
Section 114(a)(1) of the Clean Air Act, EPA Docket No. CWA-308-R01-FY20-60

Dear Mr. Thibodeau:

This letter seeks information relating to Barnhardt Manufacturing Company's ("Barnhardt's") compliance with the federal Clean Water Act ("CWA"), 33 U.S.C. § 1251 *et seq.*, and Section 112(r) of the Clean Air Act ("CAA"), 42 U.S.C. § 7412(r), at its Colrain, Massachusetts facility (the "Facility").

On October 7, 2019, the Environmental Protection Agency ("EPA") sent Barnhardt a Request for Information ("October 2019 Request," Docket No. CWA-308-R01-FY19-32) regarding a discharge of sulfuric acid on or around September 1, 2019. Barnhardt submitted a response to the October 2019 Request, dated November 11, 2019.

On October 16, 2019, EPA conducted an inspection to evaluate the Facility's compliance with the CWA, the Emergency Planning and Community Right-to-Know Act ("EPCRA"), and Section 112(r) of the CAA. Barnhardt submitted documentation requested during the inspection and in subsequent communication dated November 21 and 22, 2019.

EPA seeks additional information at this time relating to observations that EPA inspectors made during the inspection, documents Barnhardt provided to EPA during the inspection, Barnhardt's information request responses, and Barnhardt's plans for achieving and maintaining compliance with the CWA and CAA Section 112(r) ("Request"). Section 308(a) of the CWA, 33 U.S.C. § 1318(a), authorizes EPA to require the owner or operator of a point source to provide information needed to determine whether there has been a violation of the CWA. Section 114(a)(1) of the CAA, 42 U.S.C. § 7414(a)(1), authorizes EPA to require a company to submit such information as EPA may reasonably require to determine the company's compliance with the CAA.

Please read the instructions in Attachment A carefully before preparing your response and answer each question in Attachment B as clearly and completely as possible. Barnhardt's response to this Request must also be accompanied by a certificate that is signed and dated by

the person who is authorized to respond to the Request. A Statement of Certification, Attachment C, is attached to this letter.

Responses to the enclosed questions (Attachment B) shall be in writing and **provided in an electronic format within thirty (30) days of receipt of this letter** to EPA at the following addresses:

John (Jack) Melcher
melcher.john@epa.gov

Leonard Wallace
wallace.len@epa.gov

EPA acknowledges that the COVID-19 pandemic may be impacting and causing hardships to your business. Please contact us if you need additional time to respond to this Request.

Additionally, EPA notes that Barnhardt appears to be out of compliance with certain reporting requirements of the Facility's National Pollutant Discharge Elimination System ("NPDES") Permit, Parts I.B and I.C. These provisions require submittal of a Nitrogen Removal Optimization Annual Report and a Compliance Schedule Annual Report to both the NPDES Application Coordinator and as an attachment to the Facility's Discharge Monitoring Reports ("DMRs"). EPA's records indicate that Barnhardt is not in compliance with the following reporting requirements:

- The December 2018 DMR does not include the Nitrogen Removal Optimization Annual Report, due on January 15, 2019;
- The December 2019 DMR does not include the Nitrogen Removal Optimization Annual Report, due on January 15, 2020;
- The December 2018 DMR does not include the Compliance Schedule Annual Report due on January 15, 2019, nor was it submitted to the NPDES Applications Coordinator. As stated above, the Facility's NPDES Permit, Parts I.B.4, I.C.2., and I.C.3, require submission of the Report both with the DMR and separately to the NPDES Applications Coordinator; and
- The December 2019 DMR does not include the Compliance Schedule Annual Report, due on January 15, 2020.

Barnhardt should amend the appropriate DMRs and submit the missing Compliance Schedule Annual Report to the NPDES Applications Coordinator as soon as possible. Should you have any questions regarding correction of the above reporting please contact Jack Melcher at melcher.john@epa.gov or 617-918-1663.

You may, if you desire, assert a business confidentiality claim covering part or all of the information requested in the manner described by 40 C.F.R. § 2.203(b). You should read the above-cited regulations carefully before asserting a business confidentiality claim, since certain categories of information are not properly the subject of such a claim. If no such claim

accompanies the information when it is received by EPA, the information may be made available to the public without further notice to you. Please follow the procedures in Attachment A, paragraph 5, for sending any confidential information.

Compliance with this Request is mandatory. Failure to respond fully and truthfully, or to adequately justify any failure to respond, within 30 days of receipt of this letter can result in an enforcement action, including for penalties, pursuant to Section 113 of the CAA, 42 U.S.C. § 7413, and Section 309 of the CWA, 33 U.S.C. § 1319.

If you have technical questions regarding CWA matters in this Request, please contact Jack Melcher, Enforcement Officer of my staff, at (617) 918-1663. If you have technical questions regarding CAA Section 112(r) and EPCRA matters in this Request, please contact Len Wallace, Enforcement Officer of my staff, at (617) 918-1835. If you have legal questions, please have your attorney contact Kathleen Woodward, Enforcement Counsel, at (617) 918-1780 or Laura J. Berry, Enforcement Counsel, at (617) 918-1148.

Sincerely,

Karen McGuire, Director
Enforcement and Compliance Assurance Division

Electronic cc: Samantha P. McDonald, Esq., Bowditch & Dewey, LLP
Robert Cox, Esq., Bowditch and Dewey, LLP
Matthew Sokop, Massachusetts Department of Environmental Protection

Enclosures:

Attachment A – Instructions
Attachment B – Request for Information
Attachment C – Statement of Certification

Attachment A Instructions

1. Provide a separate narrative response to each item and subpart thereof set forth in this Request. Precede each response with the text and the number of the item and the subpart to which the response corresponds.
2. If you cannot respond to any item in full, respond to the extent possible. If your responses are qualified in any manner, explain.
3. Any documents referenced or relied upon by you to respond to the Request must be copied and submitted to EPA with your response. All documents must contain a notation indicating the item and subpart to which they are responding. If the documentation that supports a response to one item duplicates the documentation that supports another item, submit one copy of the documentation and reference the documentation in subsequent responses.
4. If information or documents not known or not available to you as of the date of the submission of the response to this Request should later become known, or available to you, you must supplement your response. Moreover, should you find at any time after the submission of your response that any portion of the submitted information is inaccurate or incomplete, you must notify EPA of this finding as soon as possible and provide a corrected response.
5. The information requested herein must be provided even though you may contend that it includes possible confidential information or trade secrets. As explained above, you may, if you desire, assert a business confidentiality claim covering part or all of the information requested in the manner described by 40 C.F.R. § 2.203(b). All information claimed to be confidential should be contained on separate sheet(s) and should be clearly identified as “trade secret” or “proprietary” or “company confidential.” **These separate marked sheets should be submitted to EPA separately by encrypted email to Woodward.kathleen@epa.gov or by hard copy or compact disc mailed via Federal Express or other commercial delivery service to:**

Kathleen Woodward
U.S. Environmental Protection Agency, Region 1
5 Post Office Square, Suite 100 (Mail Code OES 04-2)
Boston, MA 02109

Information covered by such a claim will be disclosed by EPA only to the extent and by means of the procedures set forth in 40 C.F.R. Part 2, Subpart B. If no such claim accompanies the information when it is received by EPA, it may be made available to the public by EPA without further notice to you. You should read the above-cited regulations carefully before asserting a business confidentiality claim, since certain categories of information are not properly the subject of such a claim.

Please note the burden of proof is on you to demonstrate that information claimed as confidential satisfies the criteria set forth in 40 C.F.R. § 2.208. If any portion of your

response contains information which you claim as confidential, you must submit two copies of any such “confidential business information” in accordance with the following procedures:

- 1) The first copy of any document containing such “confidential business information” must be complete and contain all information. Additionally, each such page must be marked conspicuously to indicate that it is claimed as confidential.
- 2) The second copy of any document that is subject to a CBI claim must be redacted so that it contains only information that is not claimed as confidential.

Attachment B Request

1. General Business and Ownership Information

Provide a flow chart/diagram that illustrates the corporate and management structure of Barnhardt, its parent company, and its subsidiaries. Identify who has responsibility for environmental compliance within each organization.

2. Sulfuric Acid and Compressed Natural Gas Operations and Maintenance

- a. Provide information about the materials of construction—including what type of steel it was made of—for the 4,500-gallon Above-ground Storage Tank (“AST”) that failed, resulting in the release of sulfuric acid on September 1, 2019 (the “Release”).
- b. Provide information about the materials of construction for the piping system that delivered sulfuric acid from the AST to the bleaching and wastewater treatment processes prior to the Release.
- c. Provide information about the materials of construction and engineering design documentation for the sulfuric acid “Day Tank” in the basement of the Bleachery Building.
- d. Item 9 of the Facility's November 21, 2019 response states that “BMC is currently working with a professional engineer to design updated sulfuric acid storage, containment, and metering systems for the Bleachery Building (No. 134) and Screening Building (No. 132), respectively,” and includes conceptual design documents in Attachment 9. Please provide an update on the proposed systems, including tanks, secondary containment, and delivery and distribution piping and equipment, as well as the planned schedule for installation and start-up. Please include plans with respect to sulfuric acid use in both the Bleaching building and the Screening building (wastewater treatment process) and provide a detailed explanation of how the new system will tie into the existing processes.
- e. Please provide standard operating procedures (“SOPs”) currently in place for the use of sulfuric acid in both the Bleaching Building and the Screening Building (wastewater treatment process).
- f. Please provide a list of changes made to the sulfuric acid AST in the last three years, a brief description of the changes made, the dates of those changes, and any management of change documentation developed for those changes.
- g. Provide all records of maintenance, inspection, or testing of the Facility’s sulfuric acid systems for the last five years.
- h. Has Barnhardt used an outside consultant to evaluate the sulfuric acid tanks (*i.e.*, AST, Day Tank, and any others) at the Facility in the last 20 years? If so, please provide the name and contact information for the consultant, the approximate date of the inspection, and copies of the reports.

- i. Provide all records of maintenance, inspection, or testing of the grounding straps/wires for the Facility's compressed natural gas ("CNG") delivery system for the last five years.

3. Sulfuric Acid Tank, Pump, and Release

- a. In Barnhardt's November 11, 2019 submission, Barnhardt stated that the Release was due to the failure of a bead weld on supply piping near the eastern base of the AST that connects to the level transmitter. In the submission, Barnhardt estimated that the total amount of sulfuric acid released from the AST was approximately 53 gallons (based on subtracting the 2,866 gallons Barnhardt states it was able to recover from the 2,919 gallons Barnhardt received in its most recent sulfuric acid delivery).
 - i. Explain and provide all calculations made to estimate the 2,866 gallons Barnhardt states that it recovered from the AST, and specify any assumptions incorporated into those calculations. For sulfuric acid waste that was removed using processes involving rinsing or dilution with other chemicals, explain how the amount of diluent was determined and provide supporting documentation.
 - ii. Explain the basis for using the 2,919 gallons of sulfuric acid delivered on August 7, 2019, given the following factors:
 - a. The Facility had operated 25 days since the most recent delivery and was using sulfuric acid during that time;
 - b. Barnhardt's calculation of the volume discharged from the AST assumes the AST was completely empty at the time of the August 7, 2019 delivery, but Barnhardt's "sulfuric acid pump operation and set points" document (Attachment 8.1 to Barnhardt's November 21, 2019 submission) instructs an operator to report to his/her supervisor that the tank is out of sulfuric acid when it contains less than 100 gallons sulfuric acid; and
 - c. Barnhardt stated that, at the time of the Release, the level transmitter previously used to measure the amount of sulfuric acid in the AST was not working and no other working gauge was in use.
- b. On what date did the level transmitter stop working?
 - i. When the level transmitter was working, how did the Facility calculate how much sulfuric acid to order? Please include in your explanation whether the final amount was determined when the order was initiated or at the time of delivery, and whether that determination was made by the Facility or the supplier.
 - ii. After the level transmitter stopped working, how did the Facility calculate how much sulfuric acid to order? Please include in your explanation whether the final amount was determined when the order was initiated or at the time of delivery, and whether that determination was made by the Facility or the supplier.

4. Wastewater

Wastewater discharges from the Facility are authorized by EPA’s NPDES Permit No. MA0003697 (the “Individual Permit”), last re-issued by EPA on September 19, 2017, and modified on March 1, 2018.

- a. Barnhardt’s Discharge Monitoring Report (“DMR”) submitted for April 2019 reflects non-compliance with the total sulfide limits set forth in Part I.A of the Individual Permit. Table 1 displays a summary of total sulfide observations in April 2019.

Table 1 – April 2019 Total Sulfide Observations

Monitoring Period End Date	Discharge Limitation	Permit Limit (pounds per day)	Observation Reported (pounds per day)
04/30/2019	average monthly	1	3.71
04/30/2019	maximum daily	2	4.94

- i. Describe the cause(s) of the total sulfide load effluent limit exceedances in April 2019.
- ii. If you believe that the values reported do not correctly reflect the Facility’s discharges, by the due date of this Request, amend the April 2019 DMR using, if appropriate, a No Discharge Indicator code to indicate why representative total sulfide load data is not available for the monitoring period.
- iii. Describe what Barnhardt is doing to prevent further exceedances.
- b. Barnhardt’s DMRs submitted in the last five years reflect non-compliance with the Whole Effluent Toxicity limits set forth in Part I.A of the Individual Permit. Table 2 displays a summary of non-compliance toxicity observations reported.

Table 2 - Summary of Non-Compliant Toxicity Observations

Monitoring Period End Date	Parameter	Permit Minimum Limit (%)	Observation Reported (%)
04/30/2018	LC50	100	82.9
01/31/2019	LC50	100	58.3
01/31/2019	C-NOEC	5	<5
04/30/2019	C-NOEC	5	<5
07/31/2019	C-NOEC	5	3.35
10/31/2019	LC50	100	61.6
10/31/2019	C-NOEC	5	<5
01/31/2020	LC50	100	70.7
01/31/2020	C-NOEC	5	3.7

Pursuant to Part I.B.4 of the Individual Permit, Barnhardt submitted a Compliance Schedule Annual Report, dated January 15, 2020. The Report states that additional work is proposed to identify the cause of the toxicity or to identify treatment alternatives, including the following:

- Toxicity testing of chemicals used in manufacturing;
- Testing for pesticides and herbicides; and
- Additional testing to further evaluate the use of activated carbon, advanced oxidation, and other treatments as outlined in EPA guidance.

Provide a schedule by which Barnhardt will conduct additional testing and when it will develop a plan to address findings.

- c. During the inspection on October 16, 2019, EPA observed that Barnhardt was not operating one of its two lagoons and one of its two clarifiers.

The O&M Plan does not provide for operating the wastewater treatment system at 50% of capacity.

- i. Provide all available annual certifications of compliance with the BMP Plan prepared since October 1, 2018.
- ii. Provide a statement of the date on which the Facility began to operate its wastewater treatment system at 50% capacity.
- iii. Describe why Barnhardt has elected to operate its wastewater treatment system at 50% of capacity.

- iv. Describe the potential impacts on effluent quality, including but not limited to total nitrogen discharges and toxicity of the discharge, of operating the wastewater treatment system at 50% of capacity.
- v. Section 2.1 of the October 2018 BMP Plan states that the Director of Environmental Health and Safety will annually conduct a Comprehensive Facility Compliance Evaluation. Please provide the most recent Comprehensive Facility Compliance Evaluation.
- vi. Provide a revised BMP Plan, as appropriate, as required by Part 1.B.1 of the Individual Permit.

5. Stormwater

Stormwater discharges from the Facility are authorized by EPA’s NPDES Multi-Sector General Permit (“MSGP”), last re-issued by EPA on June 4, 2015, under which the Facility has been assigned NPDES Identification No. MAR053530.

- a. Part 3.2.1 of the MSGP requires that, “Once each quarter for the entire permit term, you must collect a stormwater sample from each outfall (except as noted in Part 3.2.3) and conduct a visual assessment of each of these samples.”

Barnhardt’s November 22 response to the November 2019 Request provided, in Attachment 17.4, Quarterly Visual Assessment results for 2019. Quarterly Visual Assessment results for 2019 indicated no discharge during Quarter 1 (January through March), Quarter 2 (April through June), nor Quarter 3 (July through September).

EPA reviewed precipitation data available from the National Oceanic and Atmospheric Administration for a location in Colrain, Massachusetts.¹ According to these data, between April 1 and September 30, 2019, a precipitation event of greater than or equal to 0.1 inches occurred on 21 days with no precipitation event of greater than or equal to 0.1 inches in the previous three days. Table 2 provides a summary of such events.

Table 2 - Precipitation Events of Greater Than or Equal to 0.1 Inches Between April 1 and September 30, 2019, with Three-Day Antecedent Dry Period

Date	Precipitation Depth (inches)	Date	Precipitation Depth (inches)
04/01/2019	0.18	07/01/2019	0.14
04/06/2019	0.33	07/18/2019	0.36
04/21/2019	0.59	07/23/2019	2.72
05/11/2019	0.19	07/31/2019	0.18
05/18/2019	0.37	08/08/2019	0.55
05/24/2019	0.45	08/18/2019	0.21

¹ Available at: <https://www.ncdc.noaa.gov/cdo-web/datasets/GHCND/stations/GHCND:US1MAFR0029/detail>. Accessed on January 6, 2020.

Date	Precipitation Depth (inches)
05/29/2019	0.57
06/03/2019	0.47
06/11/2019	0.81
06/22/2019	0.11
06/26/2019	1.19

Date	Precipitation Depth (inches)
08/29/2019	1.05
09/03/2019	0.63
09/13/2019	0.42
09/25/2019	0.23

Outfalls 1, 3, 4, 5, and 6 all have impervious areas located adjacent to or in close proximity to catchbasins or the outfall itself. Barring measures taken by Barnhardt to prevent discharges (such as placing spill mats over catchbasins or closing outfall valves), precipitation depths of 0.1 inches are expected to generate a stormwater discharge.

Provide a description of Barnhardt's procedures for achieving compliance with the requirement in Part 3.2.1 of the MSGP to perform Quarterly Visual Assessments. Revise the Stormwater Pollution Prevention Plan ("SWPPP") as appropriate and provide an updated copy of the revised portions of the SWPPP.

- b. Part 4.1 of the MSGP requires the following:

...you must review and revise, as appropriate, your [Stormwater Pollution Prevention Plan] ...

- *Whenever a visual assessment shows evidence of stormwater pollution (e.g., color, odor, floating solids, settled solids, suspended solids, foam).*

Barnhardt's November 22 response to the November 2019 Request provided, in Attachment 17.2, Quarterly Visual Assessment results for 2018. Quarterly Visual Assessments performed in Quarter 1 (January through March) and Quarter 2 (April through June) indicate brown, turbid stormwater discharges.

Barnhardt's November 22 response to the November 2019 Request provided, in Attachment 17.1, Monthly Visual Inspection reports for 2018. The Monthly Visual Inspection report for June 2018 indicates that the parking lot was swept at the beginning of June 2018.

Section 3.7.8 of Barnhardt's September 2019 SWPPP states that, "Every spring, the contractor is called in to sweep the paved portions of the facility and the resulting sand is removed from the premises."

Describe Barnhardt's plans to provide control measures, such as more frequent sweeping, to address the brown, turbid stormwater discharges observed during Quarter 1 and Quarter 2, 2018.

End of Request

Attachment C
Statement of Certification

Complete and Include with Your Response

I declare under penalty of perjury that I am authorized to respond on behalf of Barnhardt Manufacturing Company. I certify that the foregoing responses and information submitted were prepared by me, or under my direction or supervision and that I have personal knowledge of all matters set forth in the responses and the accompanying information. I certify that the responses are true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

By _____
(Signature)

(Printed)

(Title)

(Date)